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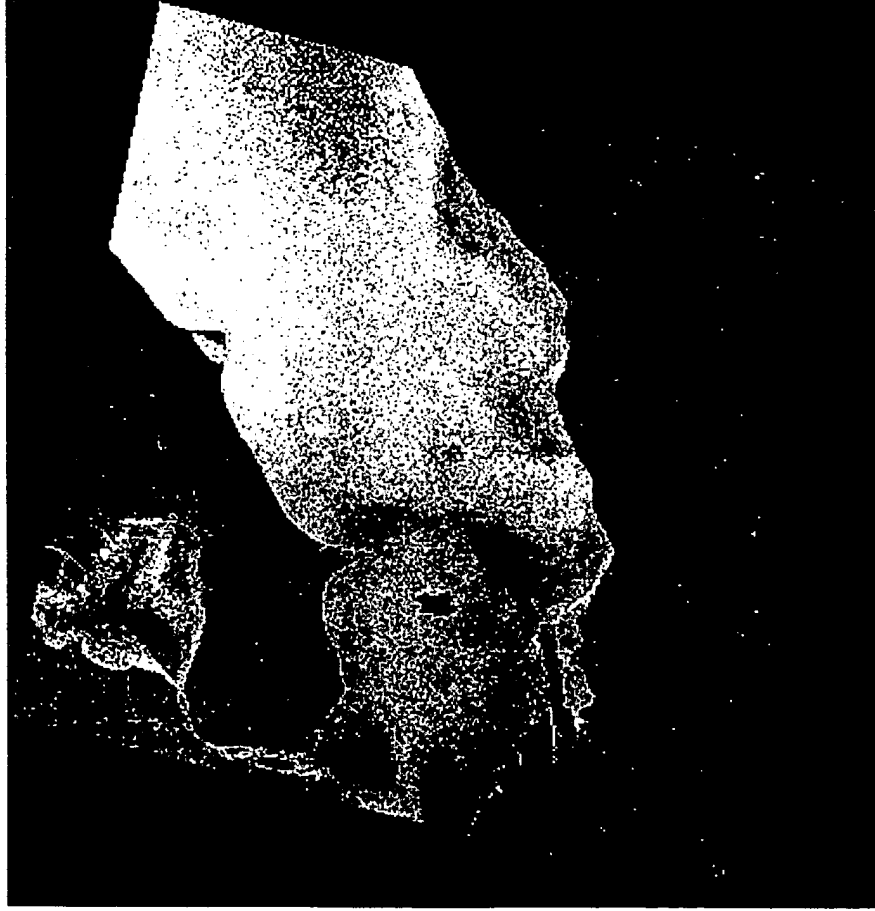
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Figure 1

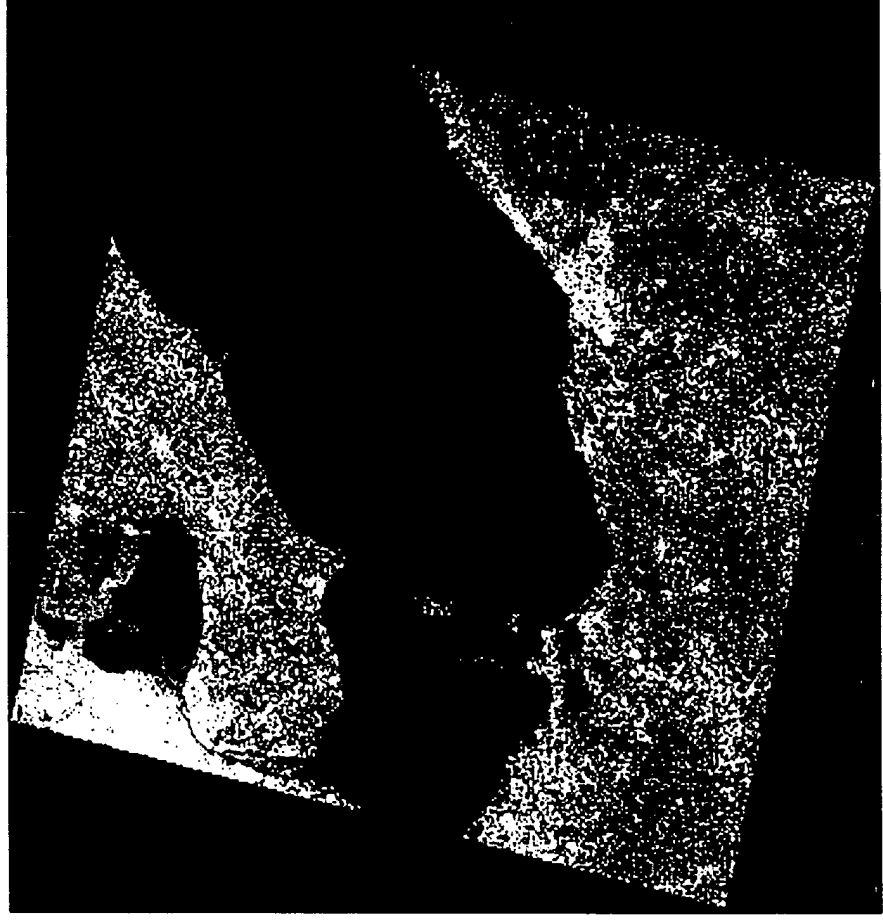
Coliform Bacteria  
(16 July 2002 Overpass,  
21 August 2001 Model)



| Color        | Coliform Bacterial Colonies<br>Per 1 ml of Water |
|--------------|--------------------------------------------------|
| Red          | 210-1060                                         |
| Yellow       | 173-209                                          |
| Yellow-green | 110-134                                          |
| Blue-Green   | 60-109                                           |
| Blue         | 1-59                                             |
| Darkest Blue | 0 (Land)                                         |

Figure 18

Natural Color Image of P. 19, R. 31 for 2 August 2002 L7 Overpass



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Figure 19

Coliform Bacteria  
 August 2, 2002 Overpass  
 (21 August 2001 Model)



| Color         | Coliform Bacterial Colonies<br>Per 1 ml of Water |
|---------------|--------------------------------------------------|
| Red           | 401-1710                                         |
| Yellow-Orange | 231-400                                          |
| Yellow-green  | 202-230                                          |
| Blue-Green    | 104-201                                          |
| Blue          | 1-103                                            |
| Darkest Blue  | 0 (Land)                                         |

Figure 20

Coliform Bacteria for 2 August 2002 Overpass (16 July 2002 Stretch)



| Color        | Coliform Bacterial Colonies<br>Per 1 ml of Water |
|--------------|--------------------------------------------------|
| Red          | 210-1060                                         |
| Yellow       | 173-209                                          |
| Yellow-green | 110-134                                          |
| Blue-Green   | 60-109                                           |
| Blue         | 1-59                                             |
| Darkest Blue | 0 (Land)                                         |

## Figure 21

Coliform Bacteria for July 16, 2002 (Left) and August 2, 2002 (Right)  
Overpasses, Path 20-Row 31  
(21 August 2001 Model; red represents  
210-1710 colonies/ml in both images)

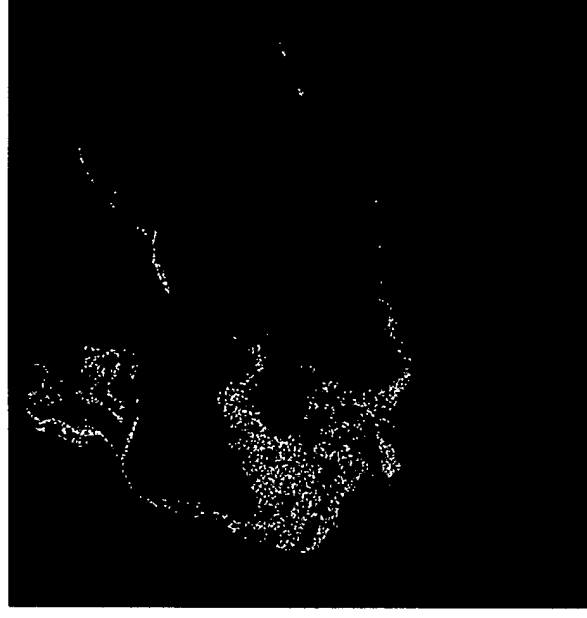
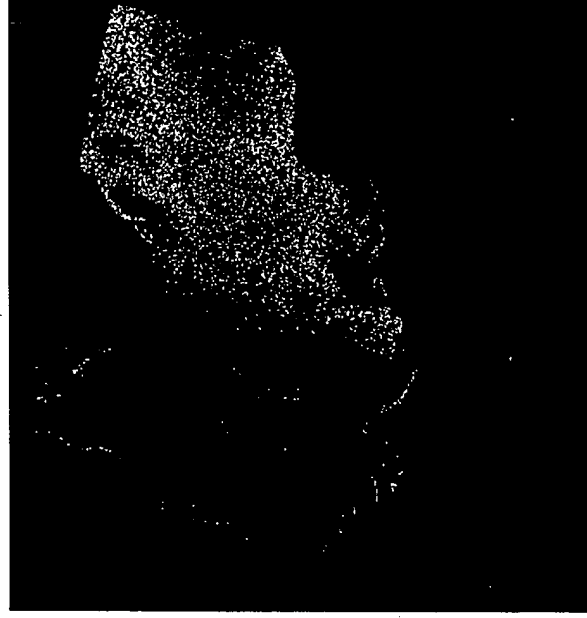


Figure 1

Total Coliform Model from LANDSAT 7 TM Data and Water Samples  
 Collected from Lake Erie on August 21, 2001

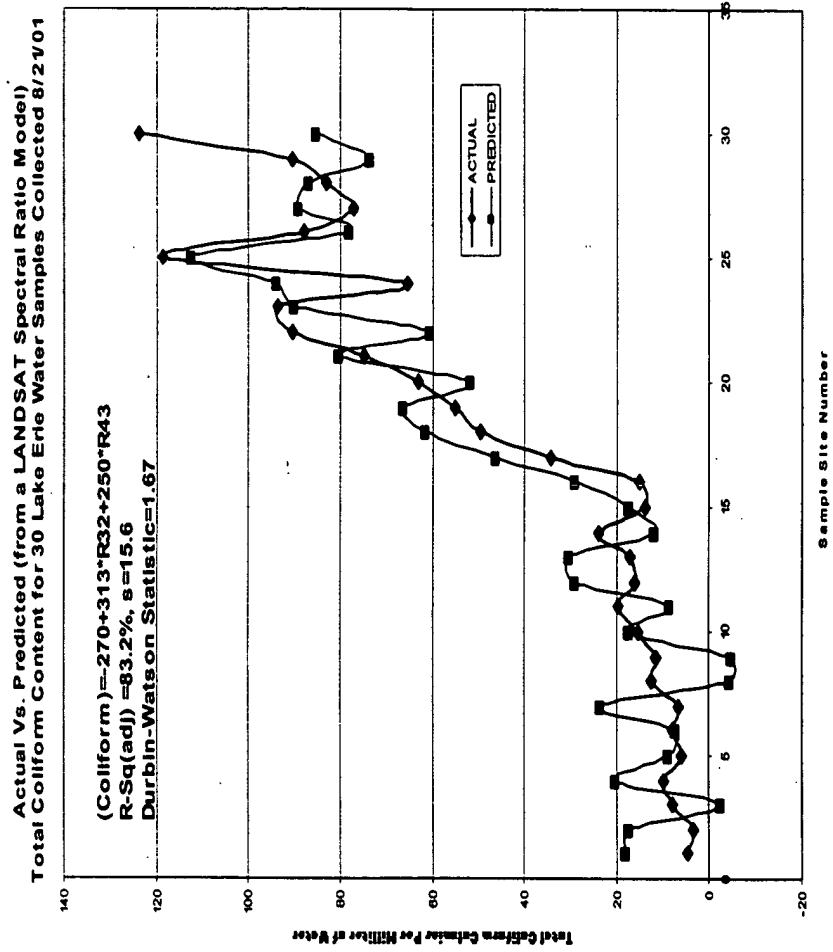


Figure 2

LANDSAT 7 TM Natural Color (Rt.) and Total Coliform (Left, Aug. 21, 2001 Model) Images (Redder is Greater) of SW Lake Erie (July 1, 2000 LANDSAT TM Data)

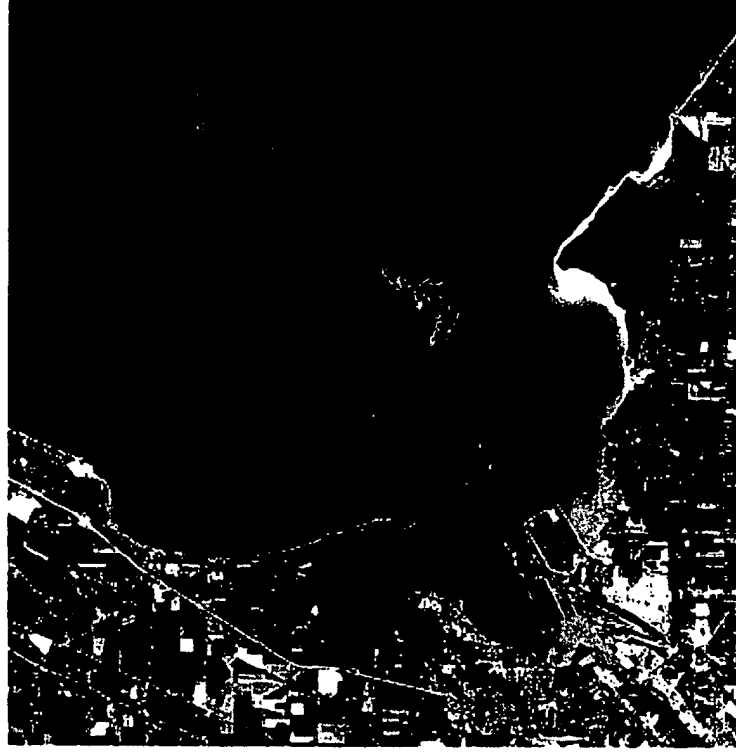
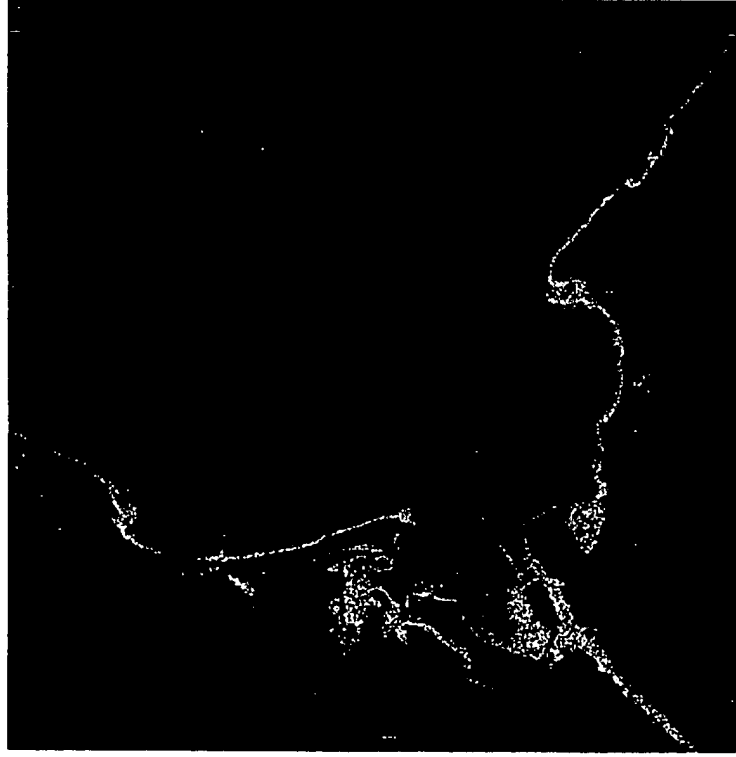




Figure 3

Coliform Mapping (Red means more) from LANDSAT TM: Subarea 2,  
Maumee Bay (Toledo and Maumee, OH)



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Figure 4

Coliform Mapping (Red means more) from LANDSAT TM: Subarea 3,  
Upper Maumee (Waterville, OH)

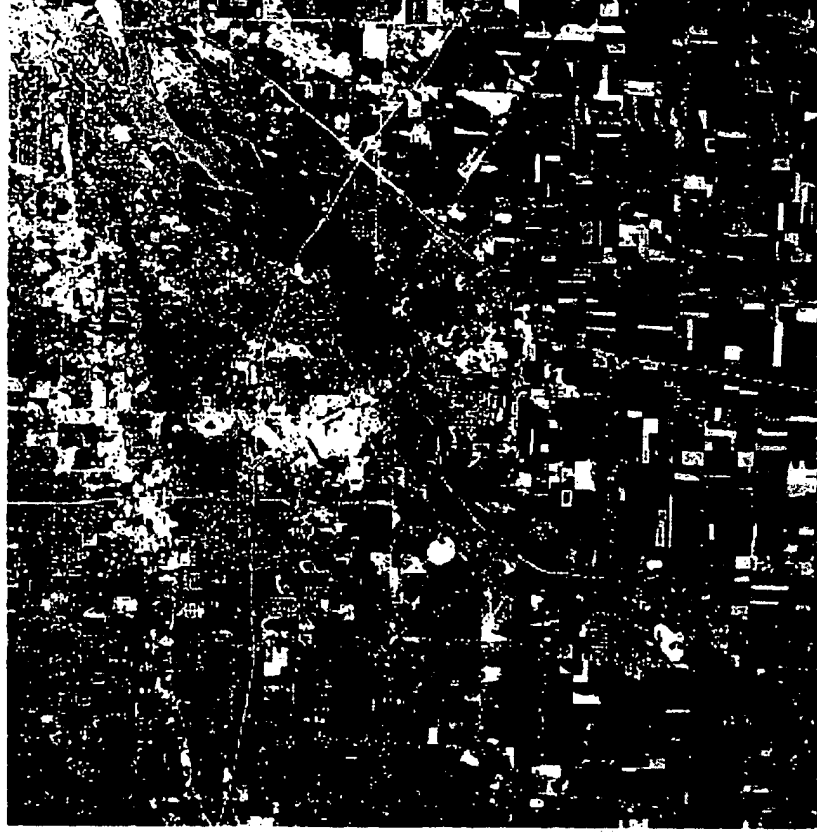


Figure 5

Coliform Mapping (Red means more) from LANDSAT TM: Subarea 4,  
Low. Mid. Maumee (Grand Rapids, OH)

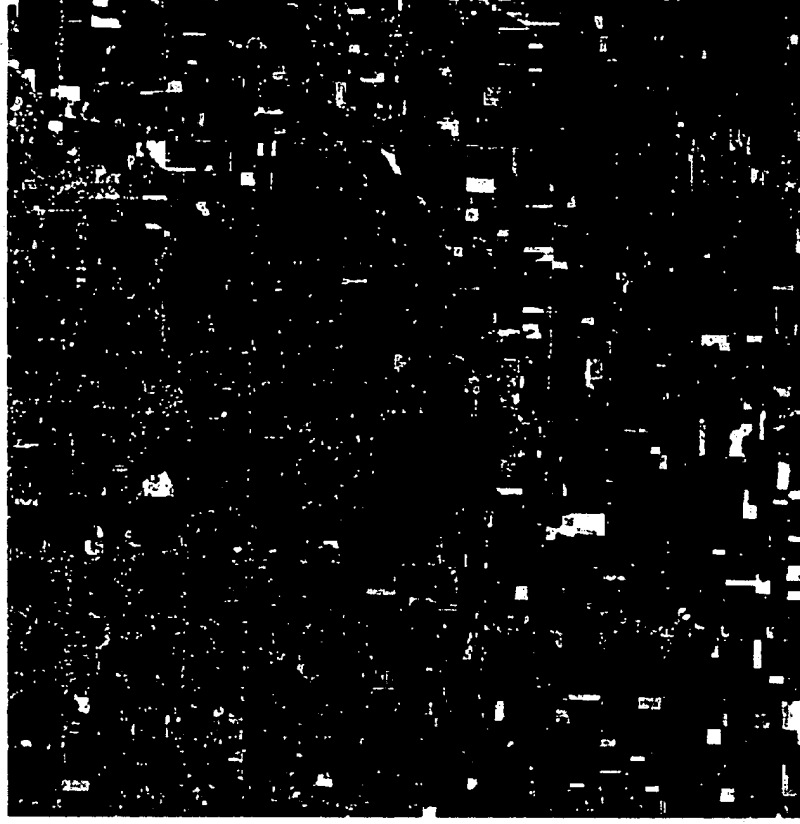


Figure 6

Coliform Mapping (Red means more) from LANDSAT TM: Subarea 5,  
Up. Mid. Maumee (Napoleon, OH)

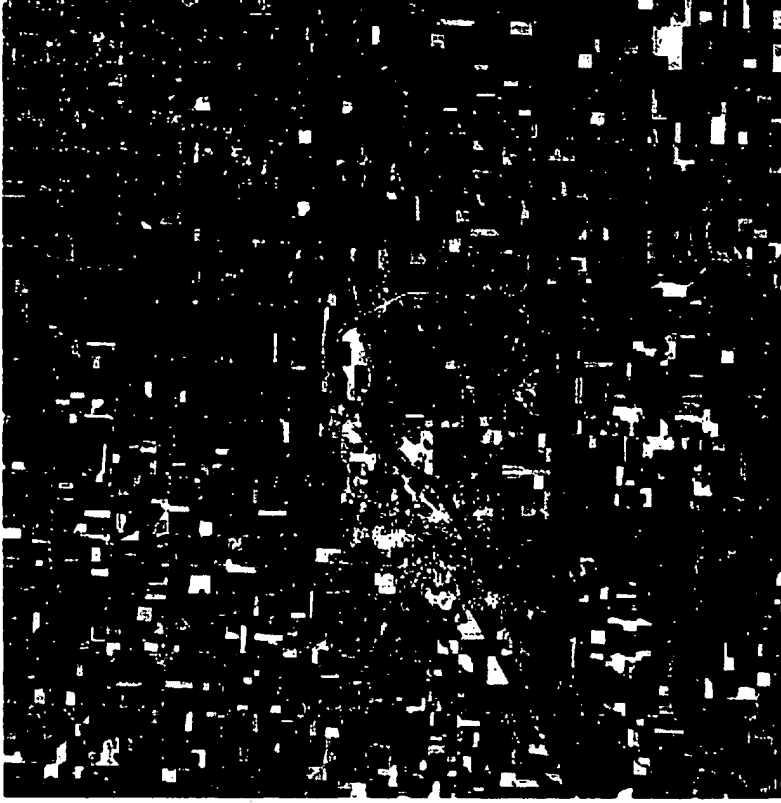
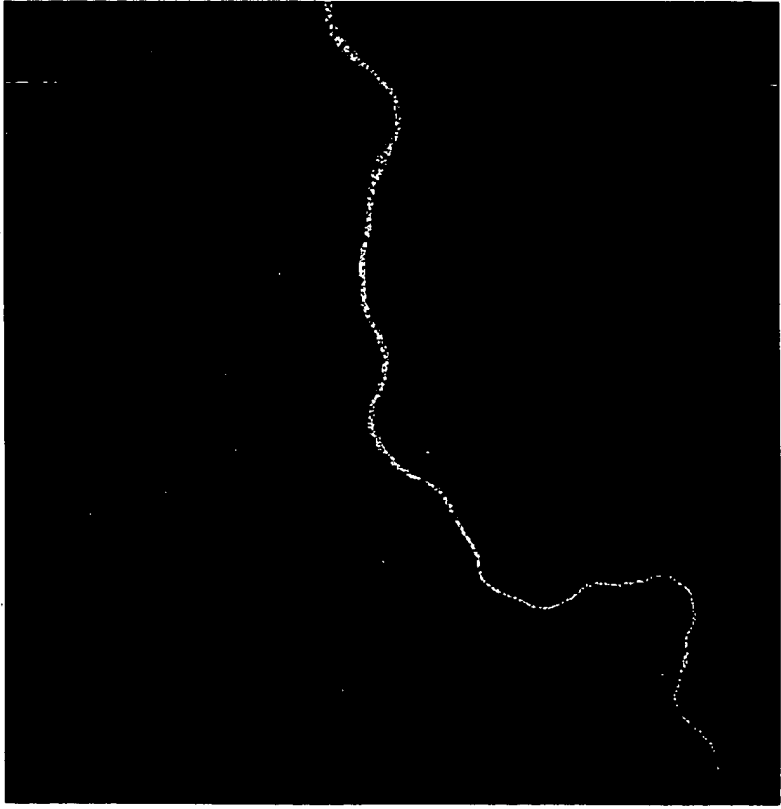


Figure 7

Coliform Mapping (Red means more) from LANDSAT TM: Subarea 6,  
Lower Maumee (Defiance, OH)

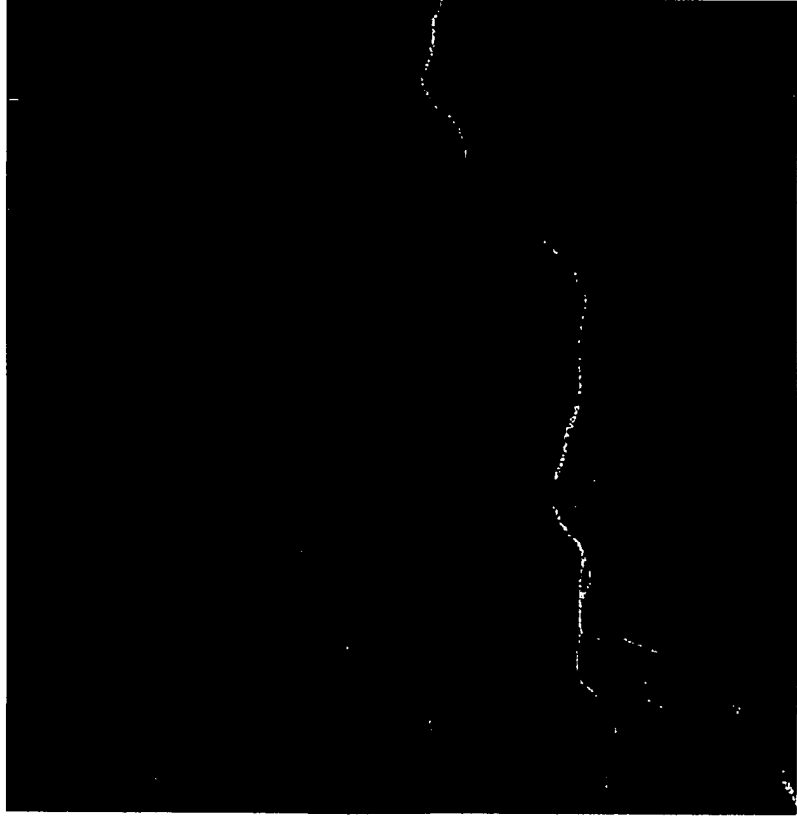


Figure 8  
Coliform Mapping (Red means more) from LANDSAT TM: Sandusky

Bay, with Portage River in Image Center

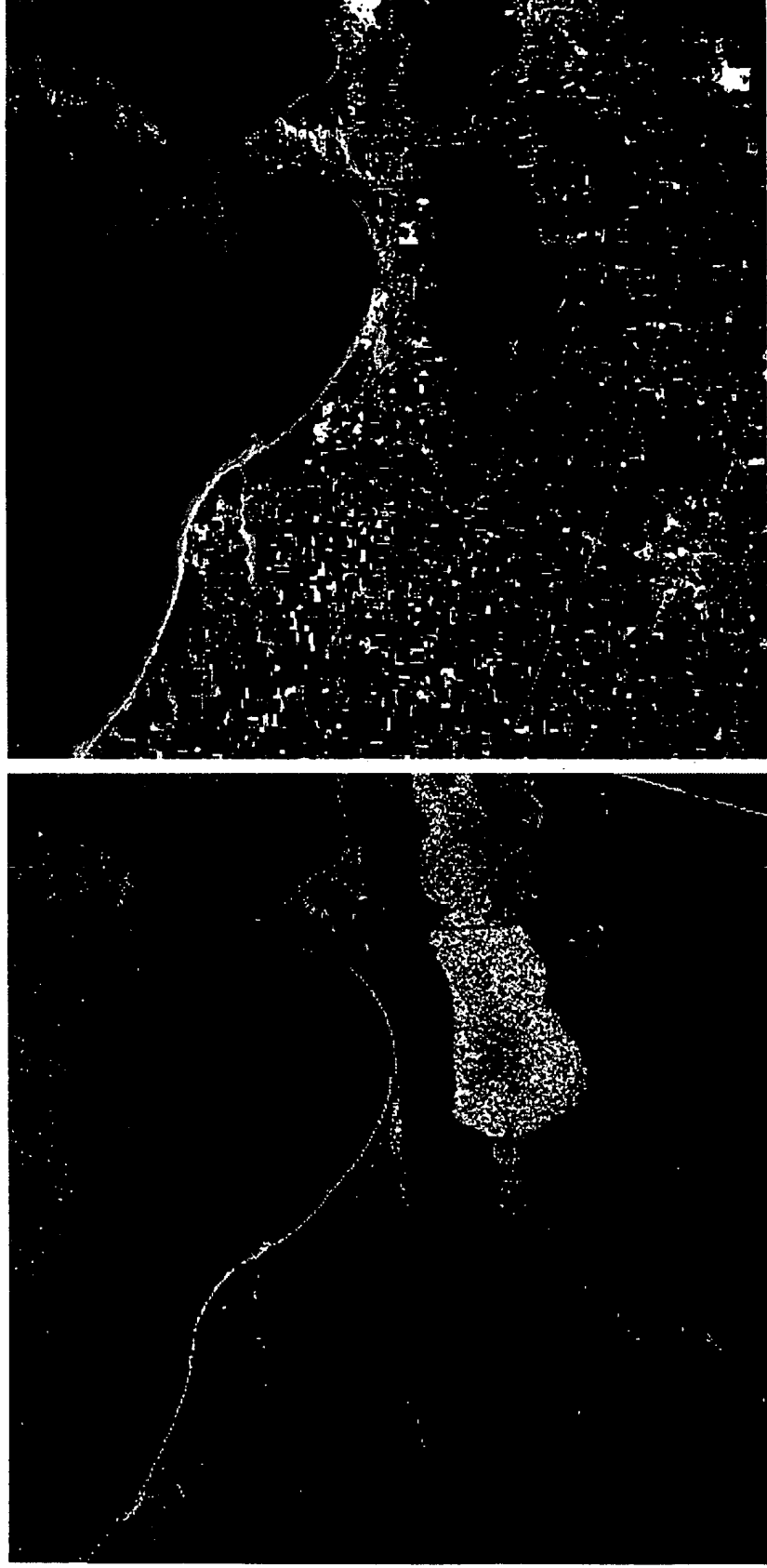
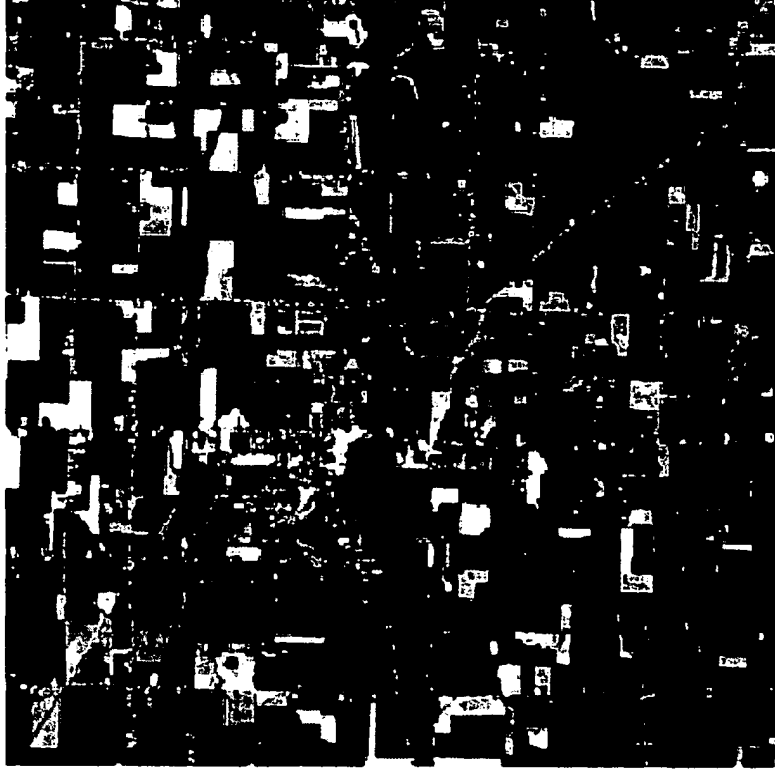


Figure 9

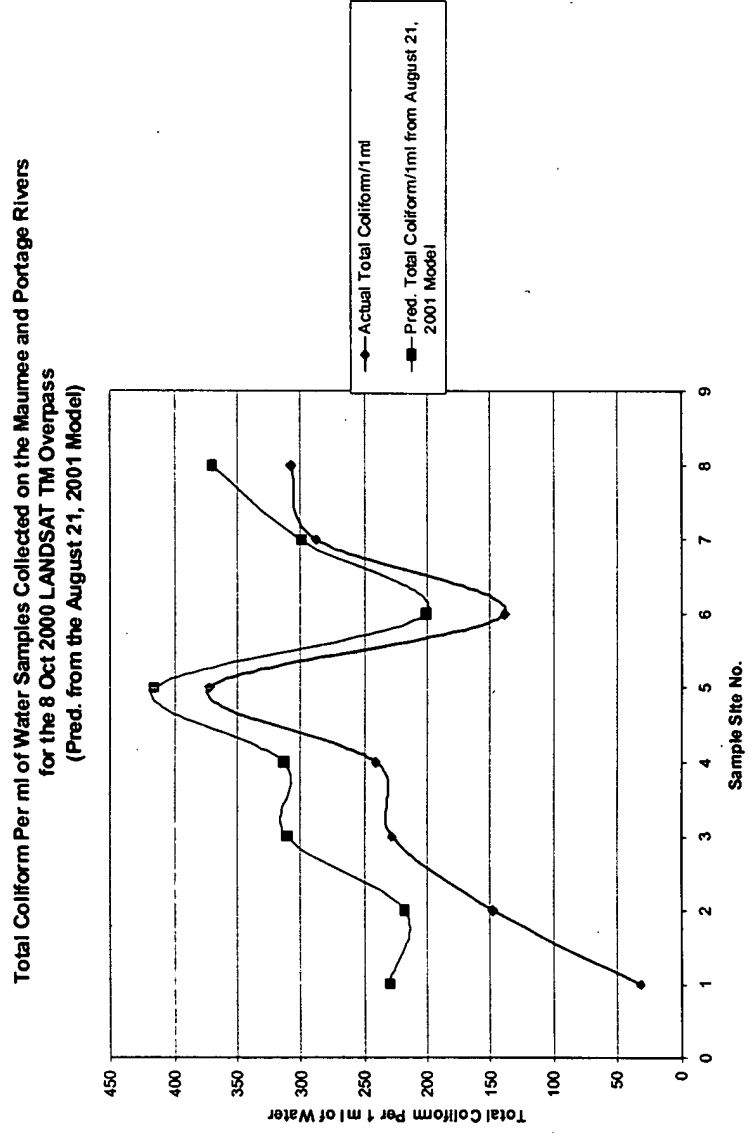
Coliform Mapping (Red means more) from LANDSAT TM: Subarea 7,  
Oak Harbor, OH on the Portage River



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# Figure 10

Total Coliform Model of Aug. 21, 2001 Applied to Water Samples  
Collected from Maumee and Portage Rivers on Oct. 8, 2000

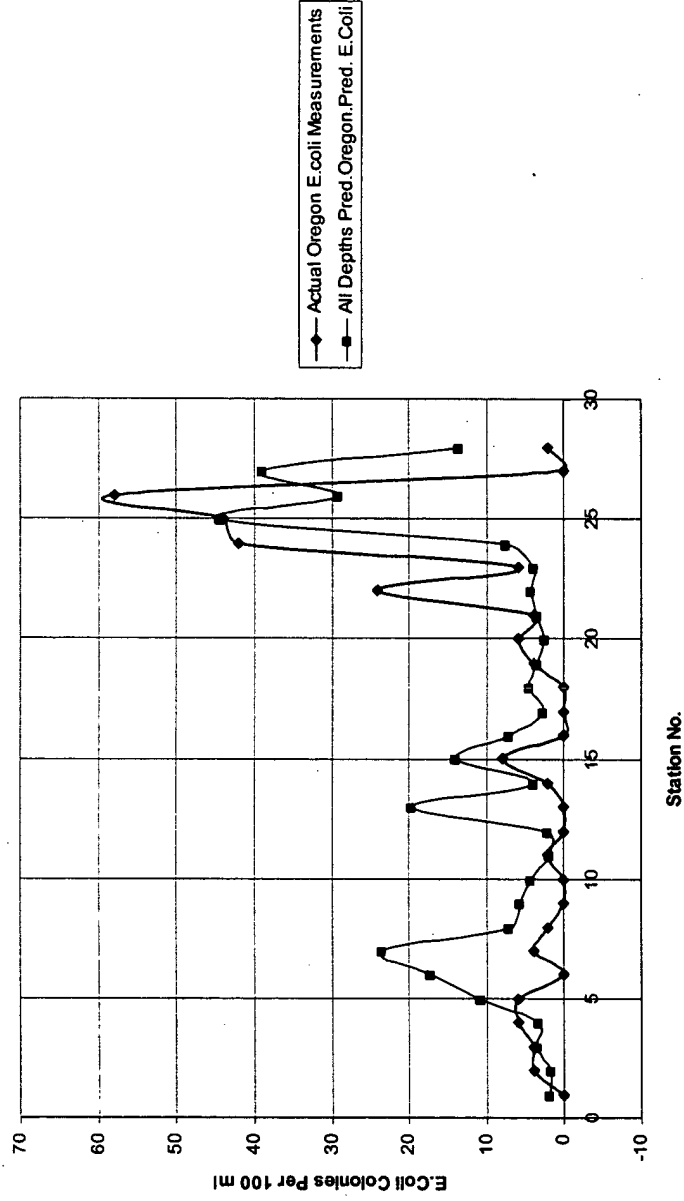




# Figure 11

E. Coli Model from City of Oregon Data and LANDSAT TM Data  
Collected on Aug. 21, 2001 (Samples from All Water Depths)

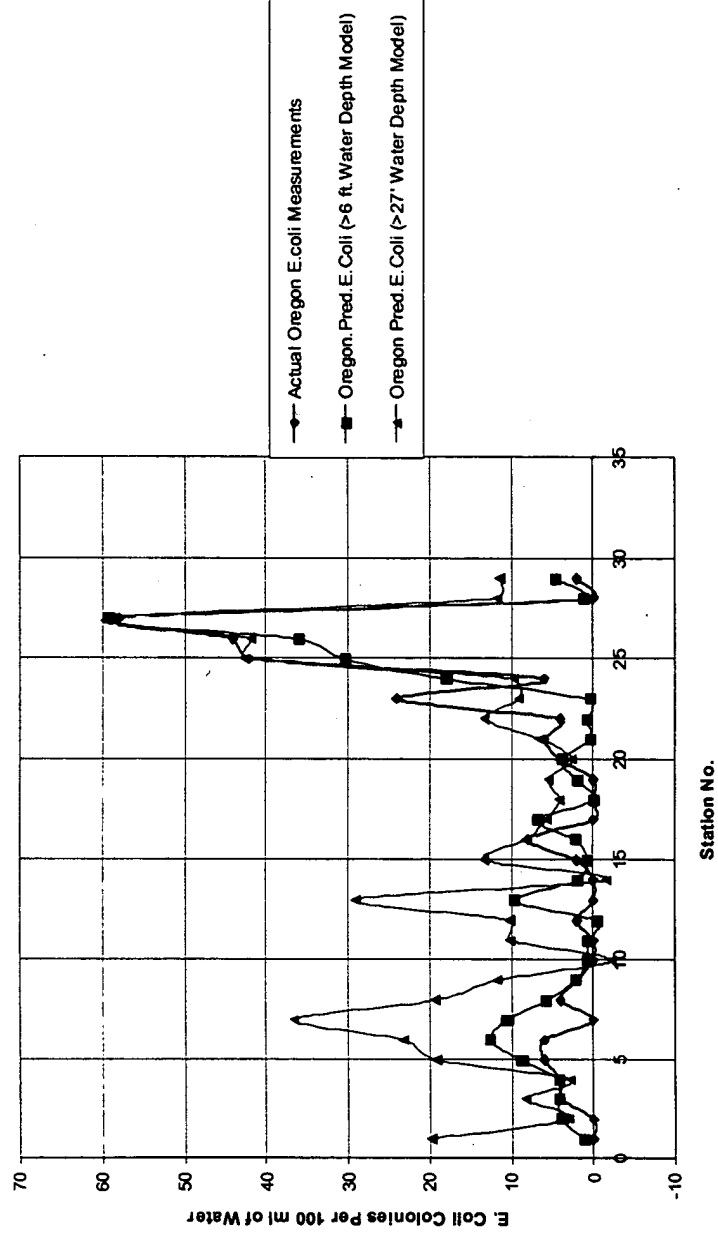
Oregon, Ohio, E.Coli/100ml Measured vs. Pred.  
Model from all depths applied to depths of 6 ft. or greater  
E.Coli/100ml of Water= $-321+1864 \cdot R_{42} - 1235 \cdot R_{52} + 213 \cdot R_{54}$ ;  $R^2(\text{Adj.})=76.0\%$ ,  $s=7.25$



# Figure 12

E. Coli Model from the City of Oregon, Ohio Data in Maumee Bay for Aug. 21, 2001, for Samples from >6 ft. and >27 ft. Water Depths

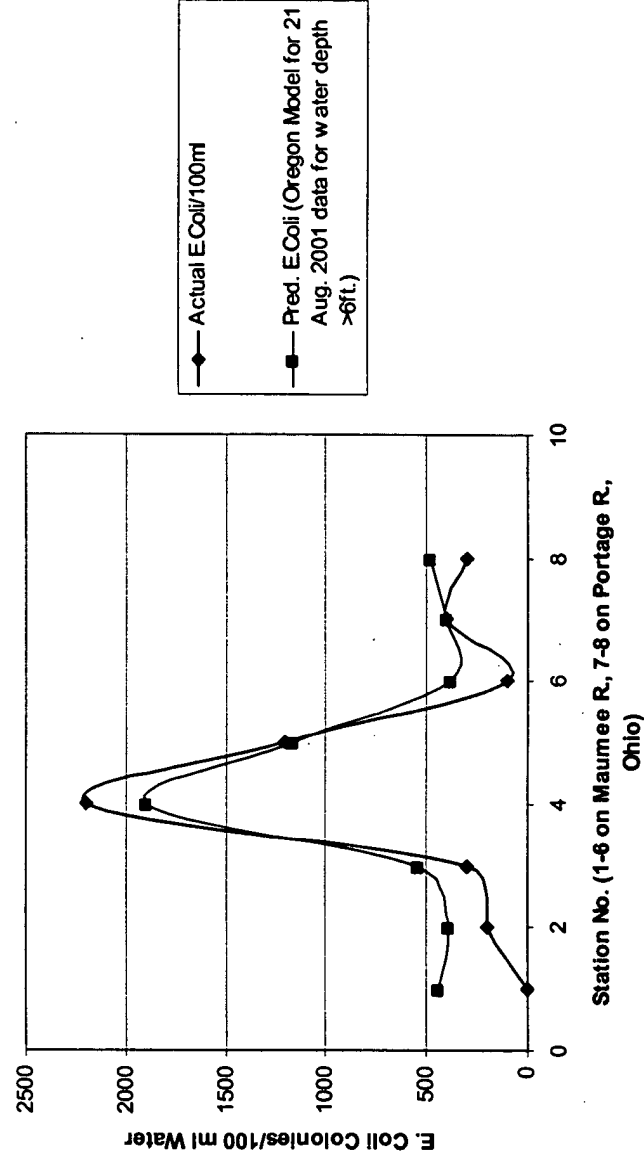
Oregon E. Coli on Aug. 21, 2001 Actually Measured and Predicted Values from Models for >6 Ft. and >27 Ft. Water Depths



# Figure 13

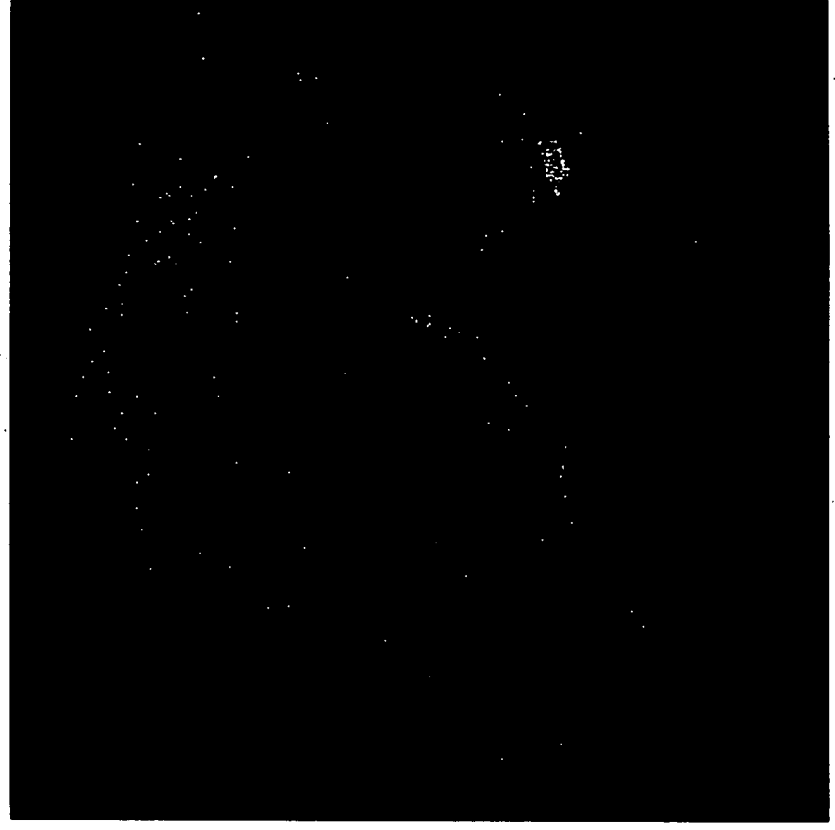
## E. Coli Model (>6ft. Water Depth) of Oregon Water Samples Collected on Aug. 21, 2001 Applied to Water Samples Collected from Maumee and Portage Rivers on Oct. 8, 2000

E. Coli Per 100 ml of Water Samples Collected on the Maumee and Portage Rivers for the 8 Oct 2001 LANDSAT TM Overpass  
(Pred. from the August 21, 2001 Model from City of Oregon, Ohio Water Samples)



## Figure 14

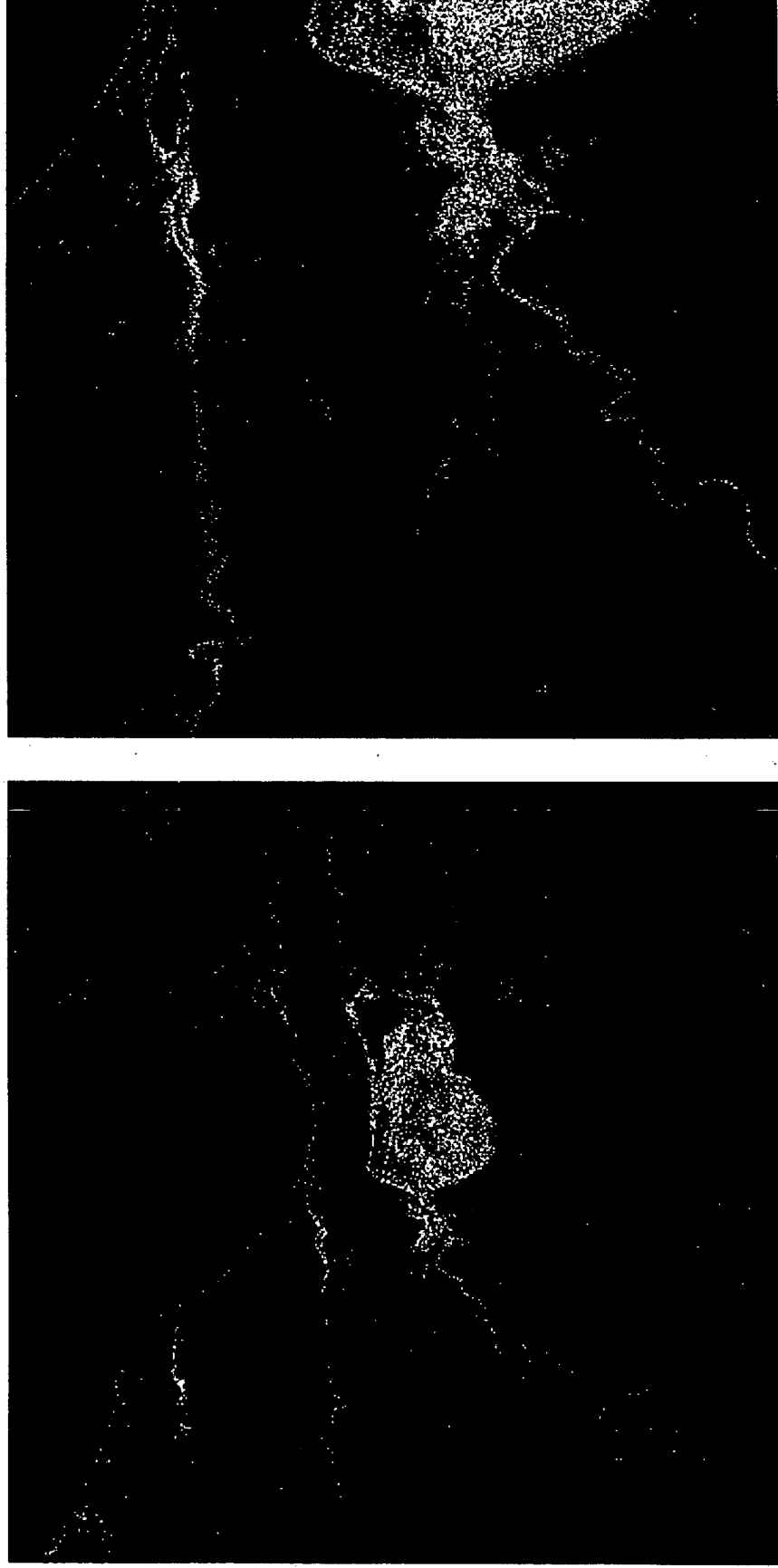
Total Coliform (Left) and E. Coli (Right) Models of Aug. 21, 2001 from  
Lake Erie and Oregon, OH Data Applied to LANDSAT TM Data of Same  
Date



## Figure 15

Zoomed E. Coli Images of Portage and Sandusky Rivers of Aug. 21, 2001

LANDSAT TM Data

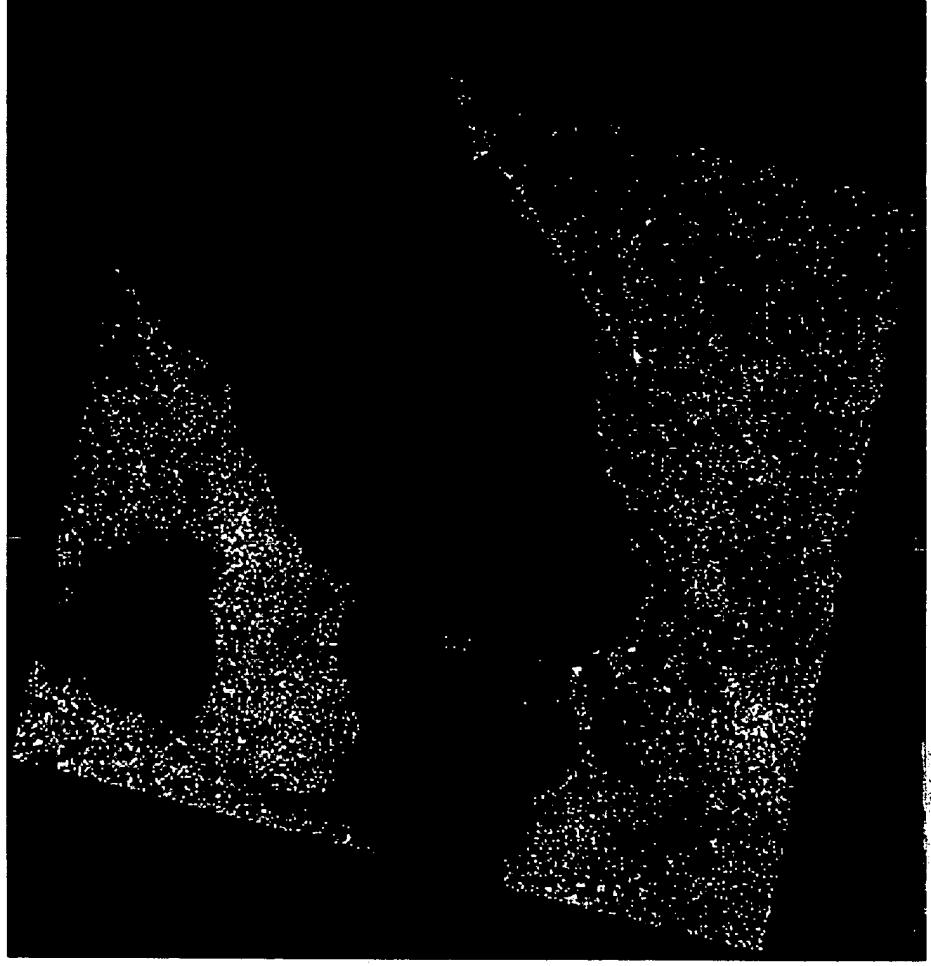


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## Figure 16

Natural Color Image of Lake Erie on

16 July 2002 (Including Cleveland, Ohio)



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